

## **AMENDMENTS TO THE CLAIMS**

### **1 to 20. (Canceled)**

**21. (New)** A method for the treatment of waste water from an activated sludge process which comprises:

a. admixing waste water from an activated sludge process or clean water with 50 volume % or less of reactive gas consisting essentially of oxygen or a mixed gas consisting essentially of oxygen and ozone to form an aqueous medium,

b. subjecting said aqueous medium in an in-line atomizer to a pressure of about 0.981 to 5.394 MBa (1 to 55 kg/cm<sup>2</sup>) to generate cavitation and ultrasonic waves of 20 to 12,000 kHz, whereby O/OH radical molecules/atoms are formed, so that the reactive gas is dissolved to the limit and the remainder, if any, of the reactive gas is dispersed and mixed bubbles of 1 nm to 30,000 nm diameter, forming a reactive gas-dissolved/dispersed liquid and

c. introducing the reactive gas-dissolved/dispersed liquid into the waste water being treated.

**22. (New)** The method of claim 21 in which the BOD loading of the aforementioned waste water under treatment is in the range from 50 to 200000 mg/liter.

**23. (New)** The method of claim 21 in which the concentration of ozone in the aforementioned active gas is adjusted to 0.01 to 0.04 mg/liter so as to cause self-oxidative annihilation of the activated sludge.

**24. (New)** The method of claim 22 in which the concentration of ozone in said reactive gas is adjusted to 0.01 to 0.04 mg/liter so as to cause self-oxidative annihilation of the activated sludge.

**25. (New)** The method of claim 21 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**26. (New)** The method of claim 22 described in claim 13 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**27. (New)** The method of claim 23 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**28. (New)** The method of claim 24 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.